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WHITE & CASE LLP
PATENT DEPARTMENT
1155 AVENUE OF THE AMERICAS
NEW YORK, NY 10036

EXAMINER

NGUYEN, QUANG N

ART UNIT PAPER NUMBER

2141

DATE MAILED: 03/25/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/534,321

Applicant(s)

GROVE ET AL.

Examiner

Quang N. Nguyen

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 13, 17, 18, 20, 21, 23, 27, 28, 30, 36-48, 50-59, 62 and 67-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13, 17, 18, 20, 21, 23, 27, 28, 30, 36-48, 50-59, 62 and 67-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 19.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

Detail Action

1. This Supplemental Office Action is in response to the telephone Interview with the Applicant's representative (Ms. Wendi R. Schepler) and the Examiner agrees to withdraw the finality of the last Office Action sent on 02/20/2004. Claims 1-2, 13, 20-21, 23, 36-37, 42, 45-48, 50-59 and 62 have been amended. Claims 9-12, 14-16, 19, 22, 24-26, 29, 31-35, 49, 60-61 and 63-66 have been cancelled. Claims 67-78 have been added as new claims. Claims 1-8, 13, 17-18, 20-21, 23, 27-28, 30, 36-48, 50-59, 62 and 67-78 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-8, 13, 17-18, 20-21, 23, 27-28, 30, 36-48, 50-59, 69 and 75-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel (US 6,141,325), in view of Gelman et al. (US 6,415,329), herein after referred as Gelman.**

Art Unit: 2141

4. As to claim 1, Gerstel teaches a method for communicating an Internet message between a source and a destination over the Internet, comprising:

selecting a node of a first type (the network control "NC" of the source node queries its agents to select a node 102 in subnet C of Fig. 1);

selecting a node of a second type (the network control "NC" of the source node queries its agents to select a node 102 in subnet D of Fig. 1);

communicating an Internet message from the source (the source node 103 in subnet A) to the node of the first type (the selected node 102 in subnet C) by links 101;

communicating the Internet message from the node of the first type (the selected node 102 in subnet C) to the node of the second type (the selected node 102 in subnet D) by links 101; and

communicating the Internet message from the node of the second type (the selected node 102 in subnet D) to the destination (the destination node 104 in subnet B) by links 101 (Gerstel, Fig. 1 and corresponding text, C3: L1-4, L34-65, and C4: L45-54).

However, Gerstel does not explicitly teach that communicating the Internet message from the source to the node of the first type using a first communication protocol, from the node of the first type to the node of the second type using a second communication protocol and from the node of the second type to the destination using a third protocol.

In the related art, Gelman teaches a method for communicating an Internet message between a source and a destination over the Internet using different protocols, wherein the first protocol is a standard protocol (such as TCP), the second protocol is a

Art Unit: 2141

high-performance protocol (such as WLP), and the third protocol is a standard protocol (such as TCP) (Gelman, Fig. 10 and corresponding text, C15: L55-64).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Gerstel and Gelman to implement/use a standard protocol for the first protocol, a high-performance protocol for the second protocol, and a standard protocol for the third protocol because it would allow the system to improve/optimize the performance of the TCP/IP protocol suite while transmitting packets (i.e., Internet messages) over different environments/subnets using protocols conversion/translation, which were conventionally employed in the art.

5. As to claim 2, Gerstel teaches a method for communicating an Internet message between a source and a destination over the Internet, comprising:

selecting a node of a first type (the network control "NC" of the source node queries its agent to select a node 102 in subnet C of Fig. 1);

communicating an Internet message from the source (the source node 103 in subnet A) to the node of the first type (the selected node 102 in subnet C) by links 101;

communicating the Internet message from the node of the first type (the selected node 102 in subnet C) to the node of the second type (the selected node 102 in subnet D) by links 101; and

communicating the Internet message from the node of the second type (the selected node 102 in subnet D) to the destination (the destination node 104 in subnet B) by links 101 (Gerstel, Fig. 1 and corresponding text, C3: L1-4, L34-65, and C4: L45-54).

Art Unit: 2141

However, Gerstel does not explicitly teach that communicating the Internet message from the source to the node of the first type using a first communication protocol, from the node of the first type to the node of the second type using a second communication protocol and from the node of the second type to the destination using a third protocol.

In the related art, Gelman teaches a method for communicating an Internet message between a source and a destination over the Internet using different protocols, wherein the first protocol is a standard protocol (such as TCP), the second protocol is a high-performance protocol (such as WLP), and the third protocol is a standard protocol (such as TCP) (Gelman, Fig. 10 and corresponding text, C15: L55-64).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Gerstel and Gelman to implement/use a standard protocol for the first protocol, a high-performance protocol for the second protocol, and a standard protocol for the third protocol because it would allow the system to improve/optimize the performance of the TCP/IP protocol suite while transmitting packets (i.e., Internet messages) over different environments/subnets using protocols conversion/translation, which were conventionally employed in the art.

6. As to claims 3-8, Gerstel-Gelman teaches the method of claims 1-2, wherein the selecting steps (a) and (b) comprises:

for each of a plurality of candidate nodes of the first type and each of a plurality of candidate nodes of the second type, determining a measure of communications

Art Unit: 2141

performance (such as bandwidth, quality of service "QoS", cost factors, etc) for selecting a combination of a node of the first type and a node of the second type to optimize the measure of communications performance between the source and the destination (Gerstel, Figs. 10A-10B and corresponding text, C3: L60-65).

7. Claim 13 is a corresponding method claim of claim 1 with reverse direction; therefore, it is rejected under the same rationale.

8. As to claims 17-18, Gerstel-Gelman teaches the method of claims 1-2, wherein the communicating step (c) of claim 1 and step (b) of claim 2 comprise redirecting the Internet message from the source to the node of the first type (i.e., redirecting the Internet message from the source node 103 in subnet A to the selected node 102 in subnet C) (Gerstel, Fig. 1 and corresponding text, C3: L1-4, L34-65, and C4: L45-54).

9. As to claims 20-21, Gerstel-Gelman teaches the method of claims 1-2, wherein the first protocol is a standard protocol (such as TCP), the second protocol is a high-performance protocol (such as WLP), and the third protocol is a standard protocol (such as TCP) (Gelman, Fig. 10 and corresponding text, C15: L55-64).

10. As to claim 23, Gerstel-Gelman teaches the method of claim 13, wherein the fourth protocol is a standard protocol (such as TCP), the fifth protocol is a high-

Art Unit: 2141

performance protocol (such as WLP), and the sixth protocol is a standard protocol (such as TCP).

11. As to claims 27-28 and 30, Gerstel-Gelman teaches the method of claims 20-21 and 23, wherein the Internet message is a World Wide Web message (HTTP transfer file test).

12. Claims 36-48 are corresponding system claims of method claims 1-8, 13, and 17-18; therefore, they are rejected under the same rationale.

13. Claims 50-56 are corresponding system claims of claims 20-21 and 23; therefore, they are rejected under the same rationale.

14. Claims 57-59 are corresponding system claims of claims 27-28 and 30; therefore, they are rejected under the same rationale.

15. Claim 69 is a combination claim of system claims 37, 45 and 51-52; therefore, it is rejected under the same rationale.

16. Claim 75 is a corresponding method claim of method claims 1, 20 and 27; therefore, it is rejected under the same rationale.

Art Unit: 2141

17. Claims 76-78 are corresponding method claims of method claims 1, 3, 5, 20 and 27; therefore, they are rejected under the same rationale.

18. Claims 62, 67-68, 70-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerstel-Gelman, in view of Ebata et al. (US 6,513,061), herein after referred as Ebata.

19. As to claim 62, Gerstel-Gelman teaches the system of claims 1 and 13 with the addition of:

the first, third, fourth and sixth protocol each includes use of HTTP and TCP protocol standards (see claims 20 and 23);

the second and fifth protocols each make use of a persistent transport connection (i.e., persistent connection included in HTTP) between a node of a first type and a node of the second type (see claims 20 and 23);

each receiver includes one or more network adaptors and supporting protocol stack software (Gelman, client gateway 222 and server gateway 224 of Fig. 10 include one or more network adaptors and support protocol stack software);

each selected node of the first type (client gateway 222) and each selected node of the second type (server gateway 224) is a computer that includes a receiver and implementing software that includes web proxy software;

However, Gerstel-Gelman does not explicitly teach the first selector includes software to select a node of the first type based at least in part on an estimate of

Art Unit: 2141

network distance between the source and the selected node of the first type and communicates the selection to the source using a DNS protocol.

In the related art, Ebata teaches a proxy server selecting unit (corresponding to the dynamic DNS server that employs DNS protocol to look up the address of a name, such as "www.cnn.com" on the internet) is provided to manage the location information (the combination of logical and physical location information representing a connecting location on the network) and the load condition of the proxy servers distributively located on the network, selects the most approximate proxy server to the client based on the location information of the client and the managed content, and notify the client (i.e., the source) of the address of the selected proxy server (Ebata, C5: L33-42).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Gerstel-Gelman and Ebata to include DNS server software that selects a proxy server (i.e., a node of the first type) and communicates the selection to the source using a DNS protocol since such methods were conventionally employed in the art to provide the client the most approximate proxy server that is selected in consideration of the loads burdened on the network and the location information (the combination of logical and physical location information representing a connecting location on the network) of the client and the server and to provide the comfortable working environment without lowering a response characteristic to enhance the network performance experienced by the user.

Art Unit: 2141

20. Claims 68 and 70 are corresponding claims of claim 62; therefore, they are rejected under the same rationale.

21. Claims 71-74 are corresponding system claims of claim 62; therefore, they are rejected under the same rationale.

22. Further references of interest are cited on Form PTO-892, which is an attachment to this office action.

23. Applicant's arguments as well as request for reconsideration filed on 02/02/2004 have been fully considered but they are moot in view of the new ground(s) of rejection.

24. A shortened statutory period for reply to this action is set to expire THREE (3) months from the mailing date of this communication. See 37 CFR 1.134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (703) 305-8190.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (703) 305-4003. The fax phone number for the organization is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Quang N. Nguyen


RUPAL DHARIA
SUPERVISORY PATENT EXAMINER